



USAF

Next Generation Automatic Test System

TACOM/Industry
Logistics Symposium Presentation

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Recommended USAF ATS Strategic Vision

- Reduce total cost of ownership for Automatic Test Systems (ATS).
- Leverage off investments from commercial industry.
- Leverage off investments of the other services.
- Leverage off initiatives of the DoD Executive Agent Office for ATS.
- Require interoperability across all USAF ATS and other services' ATS.
- Require test program transportability across all DoD ATS.
- Minimize the number of different types of test systems in the USAF inventory.
- Converge USAF ATS into a flexible combat support



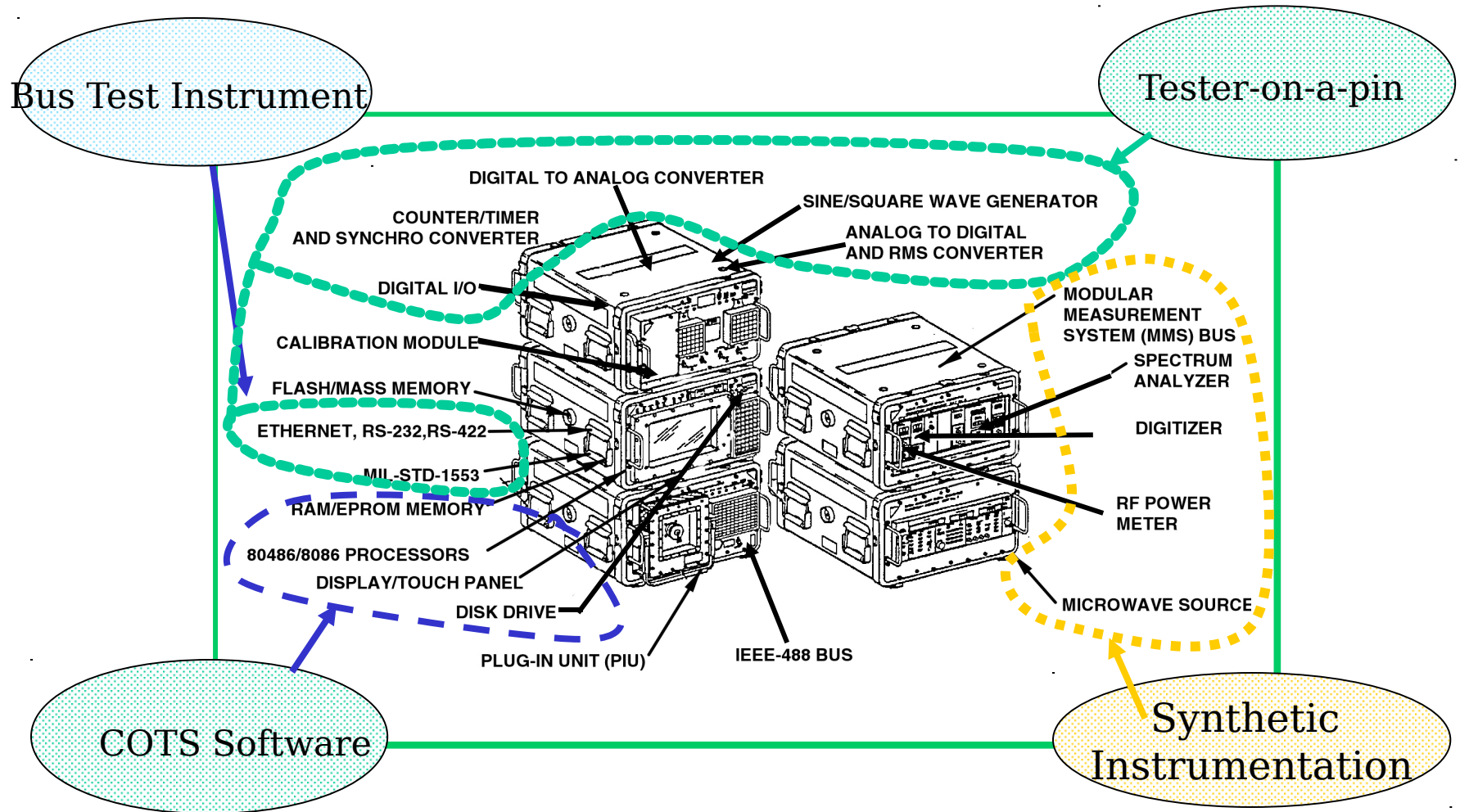
Implementing Emerging Testing Technologies

- Shared Technologies Concept Demonstration
 - Synthetic Instrument COSSI
 - Functional Test COSSI
 - Tester-on-a-pin
 - Bus Emulation/Bus Test Instrument
 - COTS Test Executive



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"Shared Technologies" Concept





USAF Support Equipment Funding

- Decentralized funding for support equipment
- Aircraft and weapon system program offices control funding
- MAJCOM requirements



Recommended Future Path for USAF ATS

- ARGCS - DOD ACTD
 - Recommended future path for USAF ATS
 - Fill customers cost, schedule, and performance requirements
 - Briefed to AFROC 20 Mar 2003
 - ATS roadmaps



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ARGCS - Task Forces Linkage





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Global Mobility Task Force Links

REQUIRED CAPABILITIES

Organizational

- Global Air Mobility Support System
- Warfighting NAFs
- JFC, AOR, AFFOR Command Elements

Planning

- Integrated Deliberate Planning Teams
- Integrated CAP
- Collaborative Planning with Supported Combatant CC

IO

- ITV/TAV
- IO Across Spectrum
- IO Risk Assessment
- IW
- NRT IO Campaign
- Seamless Integration of IO

Forward Mobility Presence

- Contingency Response Units
- Comm Operating Teams
- Special Ops Control Teams
- Base Stand-up Packages
- Emer Infra Repair Teams
- Site Prep and Protection
- Force Protection Teams
- NBC Survivability/Operability
- IDed AEF Deploy Packages

Mobility Air Forces

- **Air Refueling**
- **Passenger & Cargo Airlift**
- **Combat Delivery**
- **Aeromedical Evac**
- **SOF Support**

ARGCS capabilities:

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ARGCS shall support a Global Mobility task force with a smaller footprint and with TPS transportability across weapon systems and services.



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Air and Space Expeditionary Task Force Links

REQUIRED CAPABILITIES

Captures all critical capabilities that Air and Space Power provide the joint warfighter:

- Core competencies
- Distinctive capabilities
- Air and Space power functions

Primary focus:

- “Foundational” and “operational” capabilities that enable AEF and six Task Forces to accomplish mission

AEF must be able to generate following effects:

- Secured freedom to attack and freedom from attack
- 24/7 precise, lethal/non-lethal engagement in hrs/mins
- Ensured domination of the info spectrum and C2
- Indefinite presence over an adversary
- **Timely movement, positioning and sustainment of forces**
- **Highly responsive force support**
- Integrated manned & unmanned Air and Space Operations
- Provision of trained, motivated and ready warriors
- **Adaptive and integrated technology-to-warfighter acquisition and modernization processes**

ARGCS capabilities:

ARGCS shall support an Air and Space Expeditionary task force with a smaller footprint and with TPS transportability across weapon systems and services.

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Global Response Task Force Links

REQUIRED CAPABILITIES

- Detailed Analysis of Adversary Structures to Enable PBA
- Robust, Deployable C2
- Air Refueling and Airlift
- F2T2 Critical Mobile Tgt

- Precision Striker Sensors
- Rapid Lethal Response
- OTH Comm
- Gain/Maintain HNS
- **Ability to Rapidly Deploy Expeditionary Air & Space**

- Covertly Mobilize
- Rapid Tgt ID for Critical Targets
- Retarget Strike Assets in Flight
- Precision Standoff Attack
- Survivability & Countermeasures
- Precision Attack Against GRTF Tgt Array
- Air/Missile Defense for bases

- Force Protect Against Unconventional Threats
- Locate/Tgt Active AD Systems
- Deny Enemy Awareness
- Persistent, focused, standoff ISR
- MIJL-resistant Datalink
- Sufficient Bandwidth
- Secure, Survivable ISR

- IW for GRTF Apps
- Enable Strike of Mobile Sys
- Operate in ICAO Environ
- **Deployable Support Package**
- **Operate/Sustain Expeditionary Air & Space Ops**
- Operate in CBRN Environment
- A/A First Look, Shot, Kill

- Onboard Launch Warning
- Stealth
- Rapidly Assess Ops effects
- Provide Threat Warning
- Detect/Assess

Changing

ARGCS capabilities:

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ARGCS shall support a Global Response task force with a smaller footprint and with TPS transportability across weapon systems and services.



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ARGCS - Task Forces Linkage





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Global Strike Task Force Links

REQUIRED CAPABILITIES

C3I

- Persistent, focused, standoff I
- Detailed Analysis of Adversary Structures to Enable PBA
- Jam-resistant Datalink
- OTH Comm
- Secure, Survivable ISR
- Robust, Deployable C2
- Rapidly Assess Ops effects

Force Protection

- Air/Missile Defense for bases
- Force Protect Against Unconventional Threats

Survivability

- IW for GRTF Apps
- LO for Penetrating Strike Assets
- Onboard Launch Warning
- Survivability & Countermeasures

Logistics/Combat Support

- **Deployable Support Packa**
- **Operate/Sustain Expedition Air & Space Ops**
- Operate in CBRN Environm
- Air Refueling
- **Ability to Rapidly Deploy Expeditionary Air & Space**


Strike: F2T2

- Rapid Tgt ID for Critical Targets
- F2T2 Critical Mobile Tgts
- Retarget Strike Assets in Flight

Strike

- Locate/Tgt Active AD Sy
- Precision Attack Against GRTF Tgt Array
- Precision Standoff Attac
- Rapid Lethal Response
- A/A First Look, Shot, Kill
- Deny Enemy Awareness

ARGCS capabilities:

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ARGCS shall support a Global Strike task force with a smaller footprint and with TPS transportability across weapon systems and services.



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ARGCS - Task Forces Linkage





Air Force Summary

- Recommended strategic vision for ATS
 - Leveraging
 - Interoperability
 - Minimize types
 - Converge on common architecture
- Implementing advanced testing technologies
- Including advanced testing technologies in ATS road